

Amendments to the Specification:

Please replace the paragraph beginning at page 12, line 14 with the following rewritten paragraph:

The fluid volume sensor 10, in an embodiment, includes an electrical guard ~~30~~ 67. The purpose of the electrical guard ~~30~~ 67 is to protect the voltage sensed by the active plate 18, which moves along the signal line 36. The capacitance produced across the plates 16 and 18 in an embodiment is on the order of Picofarads. Consequently, the signal line 36 from the plate 18 to the circuit 20 is highly susceptible to outside capacitance produced by neighboring electrical components and from the surrounding area in general.

Please replace the paragraph beginning at page 12, line 21 with the following rewritten paragraph:

The guard ~~30~~ 67 has a plate portion 32 and a line portion 34. That is, the guard protects the capacitance signal from the capacitor plate 18, all the way along the signal line 36, to the capacitance sensor circuit 20. The plate portion 32, in an embodiment, is a conductive metal shell that is electrically insulated from and that electrically insulates the capacitor plate 18. The line portion 34 in an embodiment is the surrounding metal in a coaxial cable. In operation, the plate portion 32 and the line portion 34 of the guard ~~30~~ 67 are maintained at the same potential as the signal from the active capacitor plate 18, wherein the guard ~~30~~ 67 shields the signal line 36 from being influenced by external signals, electric fields or other grounds.

Please replace the paragraph beginning at page 14, line 31 with the following rewritten paragraph:

It should also be appreciated that any intermediate voltage can also be correlated to a percentage volume of dielectric fluid 30, i.e., air. Thus, the capacitance sensor 10 of the present invention can also be used to detect the presence of air within the receptacle 24. For instance, if the receptacle 24 is expected to be in a full or substantially full state at a certain time, but the sensor 10 only indicates a half-full state, the system of the sensor 10 can determine that the receptacle ~~29~~ 24 has entrapped air and can calculate the percentage of same. This is a desirable feature for fluid delivery systems, wherein the delivery system occasionally needs to purge entrained air.

Please replace the paragraph beginning at page 15, line 18 with the following rewritten paragraph:

Figure 2 illustrates an embodiment of a system circuit 40 that takes into account the capacitance sensor circuit 20, the signal line 36, the guard ~~30~~ 67, the active capacitor plate 18 electrically coupled to the signal line 36, and the ground capacitor plate 16 electrically coupled to ground 22, as described above. The capacitance sensor circuit 20 includes an amplifier 26 that electrically couples to signal line 36, wherein the signal line 36 transmits the electrical potential from the active capacitor plate 18.

Please replace the paragraph beginning at page 15, line 25 with the following rewritten paragraph:

The signal along signal line 36 is a high impedance signal that is very susceptible to external signals produced by other electrical components and by the environment in general. The amplifier 26 amplifies the signal from signal line 36 to produce a low impedance output, v_{out} . The amplified low impedance output, v_{out} , is fed back around via loop 38 to the line portion 34 of the guard ~~30~~ 67. In this manner, the system circuit 40 continuously maintains the same electrical potential along the guard ~~30~~ 67 and the signal line 36.

Please replace the paragraph beginning at page 20, line 28 with the following rewritten paragraph:

In operation, the receptacle 70 expands between the portions 62 and 64 (receptacle 24 expands from one side of the container 14 in Figures 1A to 1C). The varying distance, d , of the low dielectric displacement fluid between the expanding and contracting receptacle 70 and the portions 62 and 64 may have some effect on the capacitance between the ground plate 63 and the active plate 65. Likewise the surface area, S , defined by the ground 63 and active 65 capacitance plates and the expanding membrane 72 may have some effect on the overall capacitance. Certainly, the changing overall dielectric affects the sensed capacitance.